UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,016	09/25/2003	Suzanne K. Mclges	023-1-001	7674

7590 09/02/2004

LAW OFFICE OF BRIAN R. RAYVE
P.O. Box 11586
Salt Lake City, UT 84147-0586

EXAMINER	
KOCH, GEORGE R	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/672,016	MELGES, SUZANNE K.	
	Examiner	Art Unit	
	George R. Koch III	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-36 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-36 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 29 is objected to because of the following informalities: In claim 29, line 28, the word "food" appears to be a misspelling of --food--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 25 recites the limitation "the gears" in line 2. There is insufficient antecedent basis for this limitation in the claim. The gears are first recited in claim 23, but claim 25 is not dependent from claim 23.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 6-11, 17-18, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Pennino (US Pub 2002/0134498).

Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40); a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor;

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;

a transport device (i.e., the single action actuator which allows for the producing of the label in paragraph 0046, for example, and paragraphs 0041 and 0042) associated with said housing adapted for receiving the control signals from said controller and advancing the label strip in a coordinated manner with printing of the time/date information by said printing device on the label strip, and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source.

One interpretation of the disclosure of Pennino is that single actuator which produces the label (which is then grasped - see paragraphs 0045 to 0047) is part of the transport device. The pressing of this actuator results in the transmission of control signals from the controller and the advancing of the label strip in a coordinated manner with the printing of the time/date information by the printing device on the label strip (see also paragraph 0041-0042 & 0045-0047).

As to claim 2, the device of Pennino is capable of being held in the hand. The housing defines an interior chamber (see Figure 9) in which the controller, the electrical source, each input device, the display device, the printing device, and the transport device are disposed, said display device being viewable through a display hole through said housing (see Figure 9, item 11), and the label strip being passable outwardly from within said housing through a label outlet slot (item 90) extending through the housing.

As to claim 3, Pennino discloses that the housing includes a battery compartment (see item 24) within the interior chamber into which the electrical source in the form of a portable electrical storage device (i.e., batteries 12) is removably inserted.

As to claim 6, Pennino discloses the controller includes a processor (see paragraph 0042, item "microcontroller") adapted for executing sequences of program instructions with a clock device (item 60) for computing the time/date information, said processor being responsive to the signals from the input device for operation thereof, ROM, which is the at least one program memory device (see paragraph 0042) for storing the sequences of program instructions, RAM, which is the at least one data memory device (see paragraph 0042) for temporarily storing data including the time/date information from said processor and data from said program memory device, said data being sent to the display device and to the printing device for controlling operation thereof.

As to claim 7, Pennino discloses ROM and RAM and thus discloses that the program memory device comprises ROM and the data memory comprises RAM (see paragraph 0042)

As to claim 8, Pennino discloses that the display device can be a liquid crystal display (i.e., LCD display, paragraph 0043, line 5).

As to claim 9, Pennino discloses that the housing can include at least one mounting device affixed to a rear portion of the housing adapted for mounting the food-labeling device to a mounting surface (see Figure 14A and paragraph 0057, which discloses magnets, i.e., magnetic strips).

As to claim 10, Pennino discloses that the mounting devices comprise magnets affixed adapted for removably magnetically mounting the food labeling device to mounting surfaces made of ferrous metal).

As to claim 11, Pennino discloses that the housing is adapted to receive the label roll within the interior chamber (see paragraph 0038).

As to claim 17, Pennino discloses that the input devices include an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment).

As to claim 18, Pennino discloses that the switches are push button types (see paragraph 0041).

As to claim 28, Pennino discloses that the housing can include a cutting blade mounted thereto having a cutting edge disposed immediately adjacent the label outlet slot (item 91, and see paragraph 0044).

As to claim 29, Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40);

a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor, the input devices including an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment);

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;

a transport device (i.e., the single action actuator which allows for the producing of the label in paragraph 0046, for example, and 0041-0042) associated with said housing adapted for receiving the control signals from said controller and advancing the label strip in a coordinated manner with printing of the time/date information by said printing device on the label strip, and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source. One interpretation of the disclosure of Pennino is that single actuator which produces the

label (which is then grasped - see paragraphs 0041-0042 and 0045-0047) is a transport device.

Furthermore, the device of Pennino is capable of being held in the hand. The housing defines an interior chamber (see Figure 9) in which the controller, the electrical source, each input device, the display device, the printing device, and the transport device are disposed, said display device being viewable through a display hole through said housing (see Figure 9, item 11), and the label strip being passable outwardly from within said housing through a label outlet slot (item 90) extending through the housing.

Pennino also discloses that the housing includes a battery compartment (see item 24) within the interior chamber into which the electrical source in the form of a portable electrical storage device (i.e., batteries 12) is removably inserted.

Pennino discloses that the housing can include at least one mounting device affixed to a rear portion of the housing adapted for mounting the food-labeling device to a mounting surface (see Figure 14A and paragraph 0057, which discloses magnets, i.e., magnetic strips).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino (US Pub 2002/0134498) as applied to claims 11 above.

Pennino as applied to claims 1 and 11 above discloses all of the limitations of claims 1 and 11.

As to claim 12, Pennino discloses that the front portion of the housing includes a label roll receiving hole (see Figure 10) sized for insertion of the label roll (item 100) into said interior chamber, and said housing having a label roll support (Fingers visible in Figure 10) adapted for positioning and rotatably supporting the label roll within the interior chamber. Pennino does not disclose that the hole is in the front portion of the housing. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a hole in the rear portion of housing as an equivalent engineering design choice which would have been functionally identical to a front hole. One in the art would immediately appreciate that either option, or even a side label roll receiving hole along the periphery of the frame, would be within the skill of one in the art and would ensure functionality. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention to have placed the label roll receiving hole in the rear portion of the housing as an engineering design choice.

As to claim 13, Pennino discloses that the label roll receiving hole is substantially rectangular in shape with a finger receiving portion (shown in Figure 10) which extends radially therefrom adapted to facilitate removal of the label roll from the interior chamber.

However, it would have been obvious to one of ordinary skill in the art to have substitute a circular hole for a rectangular hole. One in the art would immediately appreciate that any reasonable hole shape to cartridge/roll shape could be used, so long as the shape of the hole is dimensioned to both receive the roll or cartridge, and dimensioned to support the roll or cartridge. Such a shape design is an engineering design choice which would be selected to achieve desire benefits of support and usability. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a circular hole shape in lieu of the rectangular hole shapeof Pennino as an engineering design choice.

As to claim 14, Pennino discloses that the label roll receiving hole is defined by an interior wall which extends forwardly from the rear portion to define a label roll receiving chamber of the interior chamber (see Figure 10).

10. Claims 20-27, 28, 30 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino (US Pub 2002/0134498) as applied to claims 1 and 29 above, and further in view of Goodwin (US Patent 5,015,324).

Pennino as applied to claims 1 and 29 above disclose the following elements:

a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40);

a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor, the input devices including an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment);

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;

a transport device (i.e., the single action actuator which allows for the producing of the label in paragraph 0046, for example, and 0041-0042) associated with said housing adapted for receiving the control signals from said controller and advancing the label strip in a coordinated manner with printing of the time/date information by said printing device on the label strip, and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source. One interpretation of the disclosure of Pennino is that single actuator which produces the label (which is then grasped - see paragraphs 0041-0042 and 0045-0047) is a transport device.

Furthermore, as to claim 20, Pennino discloses a printing device (see claim 1 and 29 above). However, Pennino is silent as to the type of printing device used. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips. These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

As to claim 21, Goodwin as incorporated in claim 20 above further discloses that the thermal printing device includes a support frame (for example, item 31, and other structures), a thermal printing head fixedly mounted to the support frame (item 45), and

a cylindrical platen (item 46') rotationally mounted to said support frame closely adjacent said thermal printing head to frictionally engage the label strip (and see column 9, lines 31 to column 10, line 19).

As to claim 22, Pennino is silent as to many of the details of the transport device. One in the art would appreciate that any conventional transport device and details thereof could be used.

Goodwin discloses that the label transport device includes a drive motor (item 162) mounted to the support frame (items 31 and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 23, Goodwin as incorporated in claim 22 above discloses that the drive motor is operably connected to the platen through a plurality of gears (see items 172, 174, and 175).

As to claims 24, Goodwin as incorporated to claim 22 above discloses that the drive motor (item 162) is an electric stepping motor (see column 8, line 44 and Figure 15, which disclose that the motor is electric, and stepping, respectively).

As to claim 25, Goodwin as incorporated discloses a gear connected to the motor (item 170, and see column 8, lines 40-63). This gear connection is a gear box.

As to claim 26, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printng and transport devices (and see Figures 4-7). Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention to have utilized the sensor mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 27, Goodwin as incorporated in claim 26 above further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8).

As to claim 30 (dependent on claim 29), Pennino as applied discloses that the display device can be a liquid crystal display (i.e., LCD display, paragraph 0043, line 5) and that the housing is adapted to receive the label roll within the interior chamber (see paragraph 0038). Pennino does disclose a printing device. However, Pennino is silent as to the type of printing device used. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips. These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

As to claim 32, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with

adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). Goodwin further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printing and transport devices (and see Figures 4-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the sensor mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 32, Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40); a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor, said input devices including an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment).;

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;

a transport device (i.e., the single action actuator which allows for the producing of the label in paragraph 0046, for example, and 0041-0042) associated with said housing adapted for receiving the control signals from said controller and advancing the label strip in a coordinated manner with printing of the time/date information by said printing device on the label strip, and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source.

One interpretation of the disclosure of Pennino is that single actuator which produces the label (which is then grasped - see paragraphs 0045 to 0047) is part of the transport device. The pressing of this actuator results in the transmission of control signals from the controller and the advancing of the label strip in a coordinated manner with the printing of the time/date information by the printing device on the label strip (see also paragraph 0041-0042).

While Pennino does recite a a printing device associated with the housing, Pennino does not further suggest that the printing device includes such details as a support frame adapted to receive the label strip therethrough, a printing head fixed mounted to the support frame, and a cylindrical rollerrotationally mounted to the support frame closely adjacent the printing head to frictionally engage the label strip.

However, Goodwin discloses a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips, and that the thermal printing device includes a support frame (for example, item 31, and other structures), a thermal printing head fixedly mounted to the support frame (item 45), and a cylindrical platen (item 46')

rotationally mounted to said support frame closely adjacent said thermal printing head to frictionally engage the label strip (and see column 9, lines 31 to column 10, line 19). These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

While Pennino is interpreted as disclosing a transport device, Pennino does not disclose that that the transport device includes such details such as a drive motor comprising an electric stepping motor mounted to the support frame and operably connected to the roller platen adapted to receive said control signals from the control and rotate the roller in the coordinated manner with the printing head.

However, Goodwin as incorporated in claim 1 for the transport device discloses that the label transport device includes a drive motor (item 162), that the drive motor (item 162) is an electric stepping motor (see column 8, line 44 and Figure 15, which disclose that the motor is electric, and stepping, respectively), that the motor mounted to the support frame (items 31 and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to have utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 34, Godwin as incorporated in claim 33 above discloses that the printing device comprises a thermal printing device for printing on thermal printable label strips.

As to claim 35, Goodwin as incorporated in claim 33 above discloses that the drive motor is operably connected to the platen through a plurality of gears (see items 172, 174, and 175). Furthermore, Goodwin as incorporated discloses a gear connected to the motor (item 170, and see column 8, lines 40-63). This gear connection is a gear box.

As to claim 36, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein

the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). Goodwin further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printing and transport devices (and see Figures 4-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the sensor mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

11. Claims 1-3, 6-14, 17-18, 20-27, 28-30 and 32-36 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino (US Pub 2002/0134498), and further in view of Goodwin (US Patent 5,015,324).

Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising: a housing (item 20) adapted for receiving the label roll (item 40); a controller (item 80) associated with said housing adapted for computing and outputting the

time/date information in the form of control signals upon receipt of a request therefor; at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor; a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view; a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;, and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source.

Pennino does disclose that the label strip is advance in a coordinated matter with the printing of the time/date information by said printing device on the label strip. Pennino does disclose that the device "produces" a label upon actuation. Pennino is explicitly silent to a transport device (i.e., the single action actuator and associated structure which allows for the producing of the label in paragraph 0046, for example) associated with said housing adapted for receiving the control signals from said controller, choosing to instead refer to the transport device in functional language as actions taken in conjunction with the movement and printing of the labels. Thus, one interpretation of Pennino is that it does not disclose a transport device.

In any event, Goodwin does disclose a transport device (see Figure 1 and 6, for example) in the context of a thermal printer labeling system. Goodwin discloses that the label transport device includes a drive motor (item 162) mounted to the support frame

(items 31 and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 2, the device of Pennino is capable of being held in the hand. The housing defines an interior chamber (see Figure 9) in which the controller, the electrical source, each input device, the display device, the printing device, and the transport device are disposed, said display device being viewable through a display hole through said housing (see Figure 9, item 11), and the label strip being passable outwardly from within said housing through a label outlet slot (item 90) extending through the housing.

As to claim 3, Pennino discloses that the housing includes a battery compartment (see item 24) within the interior chamber into which the electrical source in the form of a portable electrical storage device (i.e., batteries 12) is removably inserted.

As to claim 6, Pennino discloses the controller includes a processor (see paragraph 0042, item "microcontroller") adapted for executing sequences of program instructions with a clock device (item 60) for computing the time/date information, said

processor being responsive to the signals from the input device for operation thereof, ROM, which is the at least one program memory device (see paragraph 0042) for storing the sequences of program instructions, RAM, which is the at least one data memory device (see paragraph 0042) for temporarily storing data including the time/date information from said processor and data from said program memory device, said data being sent to the display device and to the printing device for controlling operation thereof.

As to claim 7, Pennino discloses ROM and RAM and thus discloses that the program memory device comprises ROM and the data memory comprises RAM (see paragraph 0042)

As to claim 8, Pennino discloses that the display device can be a liquid crystal display (i.e., LCD display, paragraph 0043, line 5).

As to claim 9, Pennino discloses that the housing can include at least one mounting device affixed to a rear portion of the housing adapted for mounting the food-labeling device to a mounting surface (see Figure 14A and paragraph 0057, which discloses magnets, i.e., magnetic strips).

As to claim 10, Pennino discloses that the mounting devices comprise magnets affixed adapted for removably magnetically mounting the food labeling device to mounting surfaces made of ferrous metal).

As to claim 11, Pennino discloses that the housing is adapted to receive the label roll within the interior chamber (see paragraph 0038).

As to claim 12, Pennino discloses that the front portion of the housing includes a label roll receiving hole (see Figure 10) sized for insertion of the label roll (item 100) into said interior chamber, and said housing having a label roll support (Fingers visible in Figure 10) adapted for positioning and rotatably supporting the label roll within the interior chamber. Pennino does not disclose that the hole is in the front portion of the housing. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a hole in the rear portion of housing as an equivalent engineering design choice which would have been functionally identical to a front hole. One in the art would immediately appreciate that either option, or even a side label roll receiving hole along the periphery of the frame, would be within the skill of one in the art and would ensure functionality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have placed the label roll receiving hole in the rear portion of the housing as an engineering design choice.

As to claim 13, Pennino discloses that the label roll receiving hole is substantially rectangular in shape with a finger receiving portion (shown in Figure 10) which extends radially therefrom adapted to facilitate removal of the label roll from the interior chamber.

However, it would have been obvious to one of ordinary skill in the art to have substitute a circular hole for a rectangular hole. One in the art would immediately appreciate that any reasonable hole shape to cartridge/roll shape could be used, so long as the shape of the hole is dimensioned to both receive the roll or cartridge, and dimensioned to support the roll or cartridge. Such a shape design is an engineering

design choice which would be selected to achieve desire benefits of support and usability. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a circular hole shape in lieu of the rectangular hole shapeof Pennino as an engineering design choice.

As to claim 14, Pennino discloses that the label roll receiving hole is defined by an interior wall which extends forwardly from the rear portion to define a label roll receiving chamber of the interior chamber (see Figure 10).

As to claim 17, Pennino discloses that the input devices include an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment).

As to claim 18, Pennino discloses that the switches are push button types (see paragraph 0041).

As to claim 20, Pennino discloses a printing device. However, Pennino is silent as to the type of printing device used. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips. These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

As to claim 21, Goodwin as incorporated in claim 20 above further discloses that the thermal printing device includes a support frame (for example, item 31, and other structures), a thermal printing head fixedly mounted to the support frame (item 45), and a cylindrical platen (item 46') rotationally mounted to said support frame closely adjacent said thermal printing head to frictionally engage the label strip (and see column 9, lines 31 to column 10, line 19).

As to claim 22, Goodwin as incorporated in claim 1 for the transport device discloses that the label transport device includes a drive motor (item 162) mounted to the support frame (items 31 and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 23, Goodwin as applied in claim 22 above discloses that the drive motor is operably connected to the platen through a plurality of gears (see items 172, 174, and 175).

As to claims 24, Goodwin as applied to claim 22 above discloses that the drive motor (item 162) is an electric stepping motor (see column 8, line 44 and Figure 15, which disclose that the motor is electric, and stepping, respectively).

As to claim 25, Goodwin discloses a gear connected to the motor (item 170, and see column 8, lines 40-63). This gear connection is a gear box.

As to claim 26, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printng and transport devices (and see Figures 4-7). Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention to have utilized the sensor mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 27, Goodwin as incorporated in claim 26 above further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8).

As to claim 28, Pennino discloses that the housing can include a cutting blade mounted thereto having a cutting edge disposed immediately adjacent the label outlet slot (item 91, and see paragraph 0044).

As to claim 29, Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40); a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor, the input

devices including an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment);

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll; and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source.

Furthermore, the device of Pennino is capable of being held in the hand. The housing defines an interior chamber (see Figure 9) in which the controller, the electrical source, each input device, the display device, the printing device, and the transport device are disposed, said display device being viewable through a display hole through said housing (see Figure 9, item 11), and the label strip being passable outwardly from within said housing through a label outlet slot (item 90) extending through the housing.

Pennino also discloses that the housing includes a battery compartment (see item 24) within the interior chamber into which the electrical source in the form of a portable electrical storage device (i.e., batteries 12) is removably inserted.

Pennino discloses that the housing can include at least one mounting device affixed to a rear portion of the housing adapted for mounting the food-labeling device to

a mounting surface (see Figure 14A and paragraph 0057, which discloses magnets, i.e., magnetic strips).

Pennino does disclose that the label strip is advance in a coordinated matter with the printing of the time/date information by said printing device on the label strip. Pennino does disclose that the device "produces" a label upon actuation. Pennino is explicitly silent to a transport device (i.e., the single action actuator and associated structure which allows for the producing of the label in paragraph 0046, for example) associated with said housing adapted for receiving the control signals from said controller, choosing to instead refer to the transport device in functional language as actions taken in conjunction with the movement and printing of the labels. Thus, one interpretation of Pennino is that it does not disclose a transport device.

However, Goodwin does disclose a transport device (see Figure 1 and 6, for example). Goodwin discloses that the label transport device includes a drive motor (item 162) mounted to the support frame (items 31 and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have

utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 30, Pennino discloses that the display device can be a liquid crystal display (i.e., LCD display, paragraph 0043, line 5) and that the housing is adapted to receive the label roll within the interior chamber (see paragraph 0038). Pennino does disclose a printing device. However, Pennino is silent as to the type of printing device used. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips. These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

As to claim 32, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). Goodwin further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printing and transport devices (and see Figures 4-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the sensor mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 33, Pennino discloses a food labeling device powerable by an electrical source (item 30 (ideally batteries or direct AC power - see paragraph 0037) for printing time/date information on a label strip (see paragraph 0034 and Figures 4A, 4B, and 4C) with adhesive (recited in paragraph 0038) backing for attachment to food items which is removably adhered to a backing strip formed as a label roll (see paragraph 0038), comprising:

a housing (item 20) adapted for receiving the label roll (item 40);

a controller (item 80) associated with said housing adapted for computing and outputting the time/date information in the form of control signals upon receipt of a request therefor;

at least one input device (item 70, OR items 171 and 172 in Figure 13B) associated with said housing adapted for a user to operate said controller including setting the time/date information and for submitting the request therefor, the input devices including an actuator switch to initiate label printing and at least one time/date set switch for setting the time/date information of the controller (see claim 25 which recites this embodiment);

a display device (item 11) associated with said housing adapted for receiving the control signals from said controller and displaying the time/date information for the user to view;

a printing device (item 50) associated with said housing adapted for receiving the control signals from said controller and imprinting the time/date information on the label strip passing thereby from the label roll;

and wherein said controller, input device, display device, printing device, and transport device are powered by the electrical source.

Pennino is silent as to the details of the printing device. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for

printing on thermal printable label strips and further discloses that the thermal printing device includes a support frame (for example, item 31, and other structures), a thermal printing head fixedly mounted to the support frame (item 45), and a cylindrical platen (item 46') rotationally mounted to said support frame closely adjacent said thermal printing head to frictionally engage the label strip (and see column 9, lines 31 to column 10, line 19). These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device with the support frame and cylindrical roller of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

Pennino does disclose that the label strip is advance in a coordinated matter with the printing of the time/date information by said printing device on the label strip. Pennino does disclose that the device "produces" a label upon actuation. Pennino is explicitly silent to a transport device (i.e., the single action actuator and associated structure which allows for the producing of the label in paragraph 0046, for example) associated with said housing adapted for receiving the control signals from said controller, choosing to instead refer to the transport device in functional language as actions taken in conjunction with the movement and printing of the labels. Thus, one interpretation of Pennino is that it does not disclose a transport device.

However, Goodwin does disclose a transport device (see Figure 1 and 6, for example). Goodwin discloses that the label transport device includes a drive motor (item 162), which is an electric stepping motor mounted to the support frame (items 31

and 159, see Figures 4-7) and operably connected to the platen (via intermediate platen 40 and structures 41, 42, 44, 49 and 39 - see Figure 1), and is adapted to receive control signals from the controller and rotate the platen in the coordinated manner with printing by the thermal printing head on the label strip (see Figure 15). One in the art would immediately appreciate that these structures ensure that the printing matches with the label, especially when used with sensor 38 (and see Figures 13-14 and columns 10-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the transport mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

As to claim 34, Pennino discloses a printing device. However, Pennino is silent as to the type of printing device used. One in the art would appreciate that any conventional printing device could be used.

Goodwin discloses such a conventional thermal printer and labeling device wherein the printing device is a thermal printing device (see abstract, item 45) for printing on thermal printable label strips. These thermal printing devices eliminate the need for costly ink supplies. Therefore, it would have been obvious to one of ordinary skill in the art to use the thermal printing device of Goodwin as any conventionally used printing device for Pennino in order to achieve printing capability without using ink supplies.

As to claim 35, Goodwin as applied in claim 33 above discloses that the drive motor is operably connected to the platen through a plurality of gears (see items 172,

174, and 175) and discloses a gear connected to the motor (item 170, and see column 8, lines 40-63). This gear connection is a gear box.

As to claim 36, Pennino (see paragraph 0038) discloses that the controller can be adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner to the backing strip. Pennino does not disclose a position sensor adapted to sense positioning of the label strip by detecting a plurality of markers on the label strip disposed at substantially equally spaced positioned for determining position of the individual labels relative to the printing device.

However, Goodwin discloses a position sensor (item 38) adapted to sense positioning of the label strip by detecting a plurality of markers (item 37, see Figures 13 and 14) on the label strip disposed at substantially equally spaced positions for determining position of the individual labels relative to the printing device, and wherein the controller is adapted for printing label strips comprised of a plurality of individual labels with adhesive backing which are removably adhered in a linear spaced manner (see Figures 13 and 14)to the backing strip (and see column 8, line 64 to column 9, line 22). Goodwin further discloses that the position sensor is adapted to detect markers of the printed indicia type, which are solid marks (see column 4, lines 2-8). One in the art would immediately appreciate that these sensor and mark structures ensure that the printing matches with the label, especially when used with the printing and transport devices (and see Figures 4-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the sensor

mechanisms of Goodwin in order to ensure that the printing operation is synchronized with the label transport operation.

12. Claim 4, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino as applied via 102(e) to claim 2 and 17 above, or Pennino and Goodwin as applied via 103(a) to claim 2 and 17 above, and further in view of Richardson (US Patent 5,111,216).

Under one interpretation of the transfer device, Pennino discloses all of the limitations of claims 1, 2 and 17 as above, including the housing. Under another interpretation of the transfer device, Pennino and Goodwin combined disclose and make obvious the limitations of claims 1, 2 and 17 as above.

However, Pennino or Pennino and Goodwin, are silent as to the structure of the housing. Pennino and Goodwin do not disclose that the housing comprises respective front and rear hosing halves which interconnect to define an interior chamber, the front housing half having a front wall and a peripheral half wall which extends rearwardly therefrom, and the rear housing half having a rear wall and a peripheral half wall which extends forwardly therefrom, the peripheral half walls fitting together at respective edges.

Richardson discloses a thermal printer and labeling device wherein the housing (see column 5, lines 2-5) comprises respective front and rear hosing halves which interconnect to define an interior chamber, the front housing half having a front wall and

a peripheral half wall which extends rearwardly therefrom, and the rear housing half having a rear wall and a peripheral half wall which extends forwardly therefrom, the peripheral half walls fitting together at respective edges. Richardson does teach placing all structures within a single housing in the embodiment of figure 10. One in the art would appreciate that housing structure such as that in Richardson would protect the interior structures from the external environment, as well as enable the device to be manipulated in a hand held fashion. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a housing.

As to claim 19, Pennino, or Pennino and Goodwin, do not disclose a power switch. Pennino, alone or with Goodwin, is silent as to whether there is or is not a power switch.

Richardson discloses a thermal printer and labeling device with a power switch (see column 5, line 14). One in the art would immediately appreciate that using a power switch would allow for the device to be powered down, conserving power usage. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a power switch as disclosed in order to enable the device to be deactivated, thus conserving power usage.

13. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino as applied via 102(e) to claim 2 above, or Pennino and Goodwin as applied via 103(a) to claim 2 above, and further in view of Ichikawa (US patent 5,363,227).

Pennino (or Pennino and Goodwin) discloses all of the limitations of claims 1 and 2 above, including a display.

Pennino does not disclose a transparent protector plate disposed over the display device.

Ichikawa discloses a transparent protector plate (item 15, transparent) disposed over the display device. While Ichikawa is not in the field of labeling devices, Ichikawa is reasonably pertinent to the problem on hand, which is the protection of display panels in personal electronic devices. Ichikawa discloses that the addition of a transparent protector plate improved the durability of the panel and prevents damage (see columns 5-8, especially column 7, line 64 to column 8, line 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a transparent protective plate in order to prevent damage to the underlying display device.

14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino as applied via 102(e) to claim 7 above, or Pennino and Goodwin as applied via 103(a) to claim 7 above, and further in view of Horowitz and Hill (pages 501-504).

Pennino (or Pennino and Goodwin) discloses all of the structure in claims 1 and 6. As to claim 7, Pennino also discloses one of the species of program memory devices (ROM), and the data memory (RAM).

However, Pennino does not disclose the other species of program memory device, which is PROM (programmable read only memory). Horowitz and Hill disclose that both ROM and PROM are useful since they are non-volatile, meaning that the

stored information is retained even when the power is removed, which is useful for storing programs. Furthermore, Horowitz and Hill disclose that PROM's are essentially identical to ROM, with the additional benefit of being programmable. Thus, one in the art would appreciate that software in a PROM could be updated, i.e., reprogrammed, by the user. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized PROM in lieu of ROM in order to ensure that the stored program could be updated.

15. Claims 15, 16 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino as applied via 102(e) to claim 12 or 29 above, or Pennino and Goodwin as applied via 103(a) to claim 12 or 29 above, and further in view of Mistyurik (US patent 4,668,326).

Pennino as applied to claim 1, and 11, either alone or with Goodwin, discloses that the hosing is adapted to receive the label roll with the interior chamber (see Figure 3). Furthermore, Pennino or Pennino and Godwin make obvious the details of claim 12.

As to claim 15, Pennino does not disclose that the label roll support includes at least one resiliently tlexible arm which extends inwardly into the label roll receiving hole from the rear portion of the housing terminating at a central disk with a centering post which extends forwardly therefrom to tit within a tubular core of the label roll.

Rather, Pennino uses a one piece frame construction.

However, Mistyurik discloses that the label roll support includes at least one resiliently tlexible arm (as part of item 24) which extends inwardly into the label roll

receiving hole (towards element 26) from the rear portion of the housing terminating at a central disk (item 49) with a centering post which extends forwardly therefrom to tit within a tubular core of the label roll. Furthermore, as to claim 16, Mistyurik discloses that there are two flexible arms (on both sides of element 49). Mistyurik discloses that this setup facilitates loading and unloading of the label supply (see column 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an arm and holder structure as in Mistyurik in order to facilitate loading and unloading of the label supply.

As to claim 30, Pennino discloses that the front portion of the housing includes a label roll receiving hole (see Figure 10) sized for insertion of the label roll (item 100) into said interior chamber, and said housing having a label roll support (Fingers visible in Figure 10) adapted for positioning and rotatably supporting the label roll within the interior chamber. Pennino does not disclose that the hole is in the front portion of the housing. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a hole in the rear portion of housing as an equivalent engineering design choice which would have been functionally identical to a front hole. One in the art would immediately appreciate that either option, or even a side label roll receiving hole along the periphery of the frame, would be within the skill of one in the art and would ensure functionality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have placed the label roll receiving hole in the rear portion of the housing as an engineering design choice.

Pennino does not disclose that the label roll support includes at least one resiliently tlexible arm which extends inwardly into the label roll receiving hole from the rear portion of the housing terminating at a central disk with a centering post which extends forwardly therefrom to tit within a tubular core of the label roll. Rather, Pennino uses a one piece frame construction.

However, Mistyurik discloses that the label roll support includes at least one resiliently tlexible arm (as part of item 24) which extends inwardly into the label roll receiving hole (towards element 26) from the rear portion of the housing terminating at a central disk (item 49) with a centering post which extends forwardly therefrom to tit within a tubular core of the label roll. Furthermore, as to claim 16, Mistyurik discloses that there are two flexible arms (on both sides of element 49). Mistyurik discloses that this setup facilitates loading and unloading of the label supply (see column 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an arm and holder structure as in Mistyurik in order to facilitate loading and unloading of the label supply.

16. Claims 27, 32, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennino as applied via 102(e) to claims 27, 32, and 36 above, or Pennino and Goodwin as applied via 103(a) to claims 27, 32, and 36 above, and further in view of Takizawa (US Patent 6,085,818).

Pennino or Pennino and Goodwin as applied to claims 27, 32, and 36 above disclose the species wherein the position sensor is adapted to detect printed indicia. Pennino or Pennino and Goodwin as applied does not suggest detecting perforations.

However, Takizawa discloses in label application systems that it is known to detect perforations in the labels for identifying wherein the printed labels are located (see column 3, lines 22-37). One in the art would immediately appreciate that such a system is functionally equivalent to detecting printed indicia, and also has the added benefit of being the actual start/end of the labels, thus avoiding the possibility of the marks themselves being incorrect. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such perforations as the sensed condition in order to achieve an accurate and precise identification of the location of the label.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George R. Koch III
Patent Examiner
Art Unit 1734

GRK
August 24, 2004